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**Mark, T.** [GB/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

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(74) **Agents: ROLFES, Johannes, G., A.** et al.; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

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(71) **Applicant** (*for all designated States except US*): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

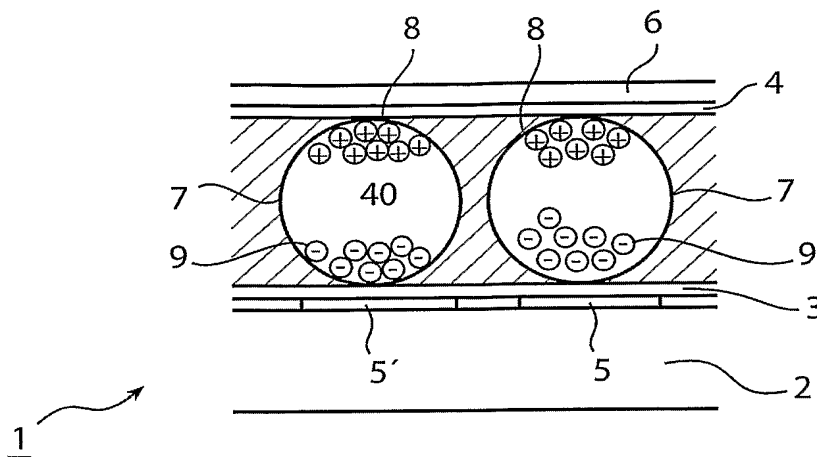
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(72) **Inventors; and**

(75) **Inventors/Applicants** (*for US only*): **ZHOU, Guofu** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **NIESSEN, Eduard, M., J.** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **JOHNSON,**

[Continued on next page]

(54) **Title:** METHOD OF INCREASING IMAGE BI-STABILITY AND GRAYSCALE ACCURACY IN AN ELECTROPHORETIC DISPLAY



(57) **Abstract:** The present invention relates to an electrophoretic display device (1) and a method of controlling gray level transitions in an electrophoretic display device. The idea of the invention is that, in an electrophoretic device where drive signals ( $D_r$ ) are applied to display device electrodes (5, 5') to effect movement of the display particles (8, 9), such that the particles correspond to image information to be displayed, a second electric signal ( $N_e$ ) is applied to the display device electrodes. This second signal is arranged to decrease the ability of the particles to respond to the drive signal. By employing the second signal in accordance with the invention, more distinct optical states can be attained and the accuracy of the states becomes higher. Thus, the optical states are easier to reproduce due to a more well-defined particle control by means of the drive waveform according to the present invention.

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